REMARKS

Claims 5-11, 13, 15-18, and 20-24 are pending in the present Application. The Examiner has indicated that claims 8, 10, 13, 21, and 22 contain allowable subject matter. Claims 5, 7, 16-17 and 24 have been amended, and claims 25-27 have been added, leaving Claims 5-11, 13, 15-18 and 20-27 for consideration upon entry of the present Amendment. No new matter has been introduced by these amendments. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Claims 5, 7, 16-17 and 24 have been amended to better define the invention. Support for these amendments can be found at least in paragraphs [0025], [0031], [0037], and throughout the specification.

New Claims

Claims 25-27 have been added to further claim the invention.

Antecedent basis for claims 25-26 is found at least at page 4, line 17 – page 5, line 11.

Antecedent basis for claims 27 is found at least in embodiments 1 and 2, and page 8, lines 10.

Claim Rejections Under 35 U.S.C. § 103(a)

Applicants thank the Examiner for withdrawal of the rejection of Claims 5, 6, 9, 11, 15-18, 20 and 23 under 35 U.S.C. § 103(a), as allegedly unpatentable over Katayama (Bioscience, Biotechnology, and Biochemistry, Department, 2000, 64(4) 808-15). (Office Action dated 6/4/2007, page 3)

Claims 5-7, 9, 11, 15-18, 20, 23, and 24 are stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Ahmad et al. (hereinafter "Ahmad")(Physiologia Plantaram, 1987, 69(1), 137) (Office Action dated 6/4/2007, page 3) Applicants respectfully traverse this rejection.

For an obviousness rejection to be proper, the Examiner must meet the burden of

establishing a *prima facie* case of obviousness, i.e., that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Claims 5-7, 9, 11, 15-18, 20, 23, and 24 are rejected as unpatentable under section 103 over *Ahmad*. The cited reference describes dipping the lower parts of leafy plant cuttings into a solution containing a root-inducing compound. (*Ahmad*, at p. 138.) *Ahmad* does not, though, teach or suggest spraying or otherwise applying a root-inducing compound to a plant's *leaves* in isolation, *i.e.*, without also applying the compound to the plant's *stem*.

Claim 5, as now amended, requires as one of its elements "a rootless cutting having at least one leaf and a stem planted in a soil." The claim also requires "a sprayer configured to apply the solution to at least one leaf of the rootless cutting and not to the stem in the soil."

Ahmad does not describe the application of a root-inducing compound to a plant with "a stem planted in a soil." *Ahmad*, moreover, fails to disclose a sprayer configured to apply the compound to a *leaf* but not the *stem* while the stem is in the soil. The Examiner appears to recognize this difference by stating in the Office Action:

> While it is true that Ahmad does not teach application of the root inducing compound by spraying, the Applicants have not shown how dipping versus spraying leads to a different or unexpected result.

(*Office Action,* at page 4.)

In fact there are at least two key advantages offered by spraying the compound onto the leaves (but not the stems) of plants with their stems already in the soil, as opposed to dipping stems (and perhaps incidentally some of the leaves) of plants into a solution containing the compound.

First, when plants are dipped into a solution containing the compound, there is a danger that viruses or other disease agents may be spread from plant-to-plant with the compound-containing solution serving as a transport medium for those disease agents. Viruses from one plant enter the solution. The viruses can then be transferred to plants dipped later into that same solution. This problem is alleviated by spraying the solution onto the plants after their stems are already in the soil, as there is not significant transfer mechanism by which the solution can carry viruses or other disease causing agents from one plant to another.

A second key advantage to the invention as claimed is economic. Dipping plants into a solution is time-consuming, labor-intensive, and costly. It is far more simple and economical simply to spray a solution onto the leaves of the plants after their stems have already been placed into the soil.

On the subject of dipping versus spraying, the Examiner states further that:

> With respect to one of ordinary skill in the art being unaware that applying the root inducing compound containing solution to the leaf of a rootless cutting would be effective in promoting root growth, the Examiner finds this statement unconvincing since *Ahmad* makes it clear that the root inducing compound is applied to "Leafy cuttings" to promote root growth.

(*Office Action*, at pages 4-5.)

Applicants disagree with this statement by the Examiner, at least in so far as it might be applied to the claims as amended in this paper. *Ahmad* describes a technique according to which the lower stems of plant cuttings are dipped into a solution containing the compound. (*Ahmad*, at page 138, "On the eleventh day, the auxins were fed by dipping the lower 1 cm of the cutting 5 min and placed in standard nutrient solution under the same climatic conditions after a rinse in deionized water.")

As *Ahmad*'s plants are "leafy cuttings," it is perhaps not unfair to surmise that some of the solution may have found its way onto at least some parts of the plant's leaves. *Ahmad* does not teach avoiding application of the solution to the plants' stems, though. To the contrary, application to the stems is clearly *Ahmad*"s primary goal, with whatever application does occur to the leaves being a purely incidental and unintended occurrence.

As we note above, amended independent claim 5 requires "a sprayer configured to apply the solution to at least one leaf of the rootless cutting and not to the stem in the soil."

Neither of the cited references teaches or suggests the use of a sprayer configured to apply solution to the leaves of a plant but not to its stem.

The other previously rejected claims, as now amended, include the same or analogous limitations. More specifically, independent claim 7 includes the same element: "a sprayer configured to apply the solution to at least one leaf of the rootless cutting and not to the stem in the soil."

Independent claim 16 is directed to a "root-inducing combination" in which "liquid is applied to the surface of the at least one leaf but not to the stem in the soil to induce root formation in the rootless cutting." Independent claim 17 is directed to a method that includes "applying the liquid to at least one leaf of the rootless cutting but not to the stem in the soil to induce root formation." Finally, independent claim 24 is directed to a method that includes "applying the liquid by spraying to a plant leaf of the rootless cutting but not to the stem in the soil plug to induce root formation."

None of these elements are taught or suggested by *Ahmad*, and each of the claimed methods provides benefits (reduced danger of spreading disease; decreased complexity and cost) over the prior art methods involving dipping as opposed to spraying.

In addition, Applicants have attached a Declaration under 37 C.F.R. 1.132, which demonstrates that the present invention is not obvious over the prior art. Specifically, the Declaration under 37 C.F.R. 1.132 notes that Ahmad does not teach or motivate one skilled in the art to apply 4-chloroindole-3-acetic acid to the surface of the leaf to promote the formation of new roots from a cutting as is required by independent claims 5, 16 and 17. This executed Declaration under 37 CFR 1.132 was originally submitted along with the non-compliant Appeal Brief file on January 23, 2006. Applicants do not believe that the Examiner has considered this Declaration under 37 CFR 1.132. Reconsideration and allowance of the case is respectfully requested in view of the Declaration under 37 CFR 1.132.

In view of the above remarks, and the attached Declaration under 37 C.F.R. 1.132, Applicants believe that the Examiner has not made a *prima facie* case of obviousness over *Katayama* or *Ahmad*. Applicants respectfully request a withdrawal of the § 103 rejection and an allowance of the claims.

Applicants respectfully submit that all of the pending claims are thus patentable over the cited art, and the prompt allowance of those claims is therefore respectfully requested.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

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Date: September 4, 2007
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